

means for connecting a first conduit to said first lumen and for connecting a second conduit to said second lumen; and

means for maintaining or enhancing perfusion to the patient's vasculature downstream of a point of entry of said catheter into a blood vessel when said catheter is inserted into the patient for treatment.

45. The multilumen catheter of Claim 44, wherein the means for maintaining or enhancing perfusion comprises an aperture.

46. The multilumen catheter of Claim 44, wherein the means for maintaining or enhancing perfusion comprises a third lumen having a distal and a proximal end configured to be positioned entirely within the patient's vascular system.

47. The multilumen catheter of Claim 44, wherein said tip is configured as a J-tip.

48. The multilumen catheter of Claim 44, wherein said tip further comprises an aperture positioned proximal the distal end.

49. The multilumen catheter of Claim 44, wherein the means for connecting comprises a Y-connector positioned at the proximal end, wherein a first leg of the Y-connector is in fluid communication with said first lumen and a second leg of the Y-connector is in fluid communication with said second lumen.